



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents, Box PCT
 United States Patent and Trademark Office
 Washington, D.C. 20231
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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/089,027	william e jack	NEB-166-PUS

INTERNATIONAL APPLICATION NO.

PCT/US00/26900

I.A. FILING DATE	PRIORITY DATE
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09/29/2000

09/30/1999

28986
 NEW ENGLAND BIOLABS, INC.
 32 TOZER ROAD
 BEVERLY, MA 01915

CONFIRMATION NO. 9409

371 FORMALITIES LETTER



OC00000008246024

Date Mailed: 06/06/2002

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- U.S. Basic National Fees
- Priority Document
- Assignee Statement
- Biochemical Sequence Listing
- Copy of IPE Report
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Oath or Declaration
- Request for Immediate Examination
- Small Entity Statement

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTH FROM THE DATE OF THIS NOTICE OR BY 22 or 32 MONTHS (where 37 CFR 1.495 applies) FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Additionally the following defects have been observed:

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).
 - APPLICANT MUST PROVIDE:
 - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
 - A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase PatentIn Software, call (703) 306-2600
 - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
- Additional claim fees of **\$450** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.

SUMMARY OF FEES DUE:

Total additional fees required for this application is **\$450** for a Large Entity:

- Total additional claim fee(s) for this application is **\$450**
 - **\$450** for **55** total claims over 20.
- A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

PATRICIA A BOOKER

Telephone: (703) 305-3738

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/089,027	PCT/US00/26900	NEB-166-PUS

Docket No.: NEB-166-PUS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: William E. Jack, et al.
Serial No.: 10/089,027
Filed: March 26, 2002
International Appln. No.: PCT/US00/26900
IA Filing Date: 29 September 2000
Title: Incorporation of Modified Nucleotides By Archaeon
DNA Polymerases And Related Methods

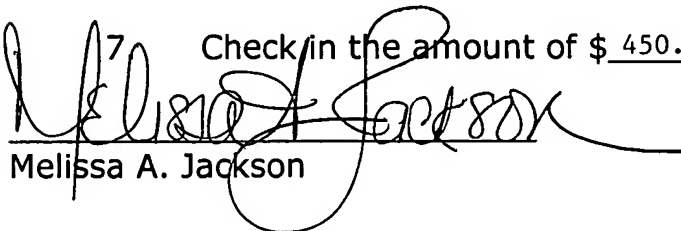
BOX PCT - Attention: Patricia Booker
Honorable Commissioner of Patents
and Trademarks
Washington, D.C. 20231

I, Melissa A. Jackson, hereby certify that the following papers are attached to this Transmittal:

1. Completion of Filing Requirements For International Application Entering National State in U.S. Designated Office (DO/US) Under 35 U.S.C. §371;
2. Copy of Notification of Missing Requirements Under 35 U.S.C. §371 in the United States Designated/Elected Office (DO/EO/US);
3. Preliminary Amendment (amending claim 6), Corrected First Named Application and Sequence Listing;
4. Marked-Up version of Claim 6.

5. Corrected Filing Receipt (to correct Jack E William to read William E. Jack)

6. Submission of Sequence Listing, Computer Readable Copy, and/or Amendment Pertaining Thereto for Biotechnology Invention Containing Nucleotide and/or Amino Acid Sequence (request to transfer Sequence Listing of Corresponding PCT Application Serial No. PCT/US00/26900 into the instant Application); and

7. Check in the amount of \$ 450.00.

Melissa A. Jackson

Practitioner's Docket No. NEB-166-PUS

IN THE UNITED STATES DESIGNATED OFFICE (DO/US)

PCT/US00/26900

29 September 2000

30 September 1999

INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE PRIORITY DATE CLAIMED
Incorporation Of Modified Nucleotides By Archaeon DNA Polymerase And
TITLE OF INVENTION Related Methods
William E. Jack, Andrew F. Gardner, Philip R. Buzby and James J. Dimeo
APPLICANT(S) FOR DO/US

Box PCT
Assistant Commissioner for Patents
Washington, D.C. 20231

ATTENTION: DO/US

**COMPLETION OF FILING REQUIREMENTS
FOR INTERNATIONAL APPLICATION ENTERING NATIONAL
STAGE IN U.S. DESIGNATED OFFICE (DO/US) UNDER 35 U.S.C. § 371**

(check and complete the following item, if applicable)

☒ This replies to the Notice of Missing Requirements under 35 U.S.C. § 371 and 37 C.F.R. § 1.494 (FORM PCT/DO/EO/905).

☒ A copy of FORM PCT/DO/EO/905 accompanies this response.

WARNING: Where the items being submitted to complete the entry of the international application into the national phase are filed subsequent to the initial application is still considered to be in the international stage. If mailing procedures are utilized to obtain a date, the express mail procedure of 37 C.F.R. § 1.10 must be used (because international application papers are not covered by an ordinary certificate of mailing. 37 C.F.R. § 1.8(2)(xi).

NOTE: Documents and fees must be clearly identified as a submission to enter the national stage under 35 U.S.C. § 371. Otherwise, the submission will be considered as being made under 35 U.S.C. § 111. 37 C.F.R. § 1.494(f).

EXPRESS MAILING UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.)

(Express Mail certification is optional.)

I hereby certify that this paper, along with any document referred to, is being deposited with the United States Postal Service on this date Sept 16, 2000, in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 as "Express Mail Post Office to Addressee" Mailing

Label No. EL010483118US

Melissa A. Jackson

(Type or print name of person mailing paper)

(Signature of person certifying)

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

***WARNING:** Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Completion of Filing Requirements for International Application Entering National Stage in Designated Office (DO/US) under 35 U.S.C. § 371 [13-8]—page 1 of 6)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: William E. Jack, et al.

Application No.: 10 / 089,027 Group No.:

Filed: 3/26/02

Examiner:

For: Incorporation of Modified Nucleotides By Archaeon DNA Polymerases
And Related Methods

Box Sequence

Assistant Commissioner for Patents

Washington, D.C. 20231

SUBMISSION OF "SEQUENCE LISTING," COMPUTER READABLE COPY,
AND/OR AMENDMENT PERTAINING THERETO
FOR BIOTECHNOLOGY INVENTION CONTAINING NUCLEOTIDE
AND/OR AMINO ACID SEQUENCE

(check and complete this item, if applicable)

- 1.
- ☒
- This replies to the Office Letter dated
- 5/29/02

NOTE: If these papers are filed before the office letter issues, adequate identification of the original papers should be made, e.g., in addition to the name of the inventor and title of invention, the filing date based on the "Express Mail" procedure, the application number from the return post card or the attorney's docket number added.

- ☒
- A copy of the Office Letter is enclosed.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

- ☒
- deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

37 C.F.R. § 1.8(a)

37 C.F.R. § 1.10*

- ☒
- with sufficient postage as first class mail.

- ☐
- as "Express Mail Post Office to Addressee"

Mailing Label No. _____ (mandatory)

TRANSMISSION

- ☐
- transmitted by facsimile to the Patent and Trademark Office.

Date: 6.6.02

Signature

Melissa A. Jackson

(type or print name of person certifying)

*WARNING: Each paper or fee filed by Express Mail must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(Submission—Nucleotide and/or Amino Acid Sequence [9-37]—page 1 of 6)

IDENTIFICATION OF PERSON MAKING STATEMENT

2. I, Gregory D. Williams
(type or print name of declarant signing below)
state the following:

ITEMS BEING SUBMITTED

3. Submitted herewith is/are:

(check each item as applicable)

- A. ☐ "Sequence Listing(s)" for the nucleotide and/or amino acid sequence(s) in this application. Each "Sequence Listing" is assigned a separate identifier as required in 37 C.F.R. § 1.821(c) and 37 C.F.R. §§ 1.822 and 1.823.
- B. ☐ An amendment to the description and/or claims, wherein reference is made to the sequence by use of the assigned identifier, as required in 37 C.F.R. § 1.821(d).
- C. ☐ A copy of each "Sequence Listing" submitted for this application in computer readable form, in accordance with the requirements of 37 C.F.R. §§ 1.821(e) and 1.824.
- D. ☒ Please transfer to this application, in accordance with 37 C.F.R. § 1.821(e), the computer readable copy(ies) from applicant's other application identified as follows:
- In re application of: William E. Jack, et al.
Application No.: PCT/US00/26900 Group No.:
Filed: September 29, 2000 Examiner:
For: Incorporation Of Modified Nucleotides By Archaeon DNA
Polymerases And Related Methods

The Computer readable form(s) of applicant's other application corresponds to the "Sequence Identifier(s)" of the application as follows:

Computer Readable Form
(other application)

"Sequence Identifier"
(this application)

All sequence identifiers of Applicants' other application, PCT/US00/26900 filed 29 September 2000 correspond to the sequence identifiers of the instant Application Serial No. 10/089,027 filed 26 March 2002.

NOTE: "If the computer readable form of a new application is to be identical with the computer readable form of another application of the applicant on file in the Office, reference may be made to the other application and computer readable form in lieu of filing a duplicate computer readable form in the new application. The new application shall be accompanied by a letter making such reference to the other application and computer readable form, both of which shall be completely identified." 37 C.F.R. § 1.821(e).

- E. ☒ A statement that the content of each "Sequence Listing" submitted and each computer readable copy are the same, as required in 37 C.F.R. § 1.821(g).
- ☐ Because the statement is not made by a person registered to practice before the Office, the statement is verified as required in 37 C.F.R. § 1.821(b).
- F. ☒ Because this submission is made in fulfilling the requirement under 37 C.F.R. § 1.821(g), a statement that the submission includes no new matter.
- ☐ Because the statement is not made by a person registered to practice before the Office, the statement is verified, as required in 37 C.F.R. § 1.821(g).

**STATEMENT THAT "SEQUENCE LISTING"
AND COMPUTER READABLE COPY ARE THE SAME
AND/OR THAT PAPERS SUBMITTED INCLUDES NO NEW MATTER**

4. I hereby state:

(complete applicable item A and/or B)

- A. ☐ Each computer readable form submitted in this application, including those forms requested to be transferred from applicant's other application, is the same as the "Sequence Listing" to which it is indicated to relate.
- B. ☒ All papers accompanying this submission, or for which a request for transfer from applicants' other application, introduce no new matter.

STATUS

5. Applicant is

- ☐ a small entity. A statement:
- ☐ is attached.
- ☐ was already filed.
- ☒ other than a small entity.

(Submission—Nucleotide and/or Amino Acid Sequence [9-37]—page 3 of 6)

EXTENSION OF TERM

6.

NOTE: 37 C.F.R. § 1.704(b) ". . .an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: "Extension of Time in Patent Cases (Supplement Amendments)—If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of Dec. 10, 1985 (1061 O.G. 34-35).

NOTE: See 37 C.F.R. § 1.645 for extensions of time in interference proceedings and 37 C.F.R. § 1.550(c) for extensions of time in reexamination proceedings.

7. The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

(complete (a) or (b) as applicable)

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(4)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 400.00	\$ 200.00
<input type="checkbox"/> three months	\$ 920.00	\$ 460.00
<input type="checkbox"/> four months	\$ 1,440.00	\$ 720.00

Fee: \$_____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured. The fee paid therefor of \$_____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$_____

OR

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE PAYMENT

8. ☐ Attached is a ☐ check ☐ money order in the amount of \$ _____
☐ Authorization is hereby made to charge the amount of \$ _____
☐ to Deposit Account No. _____
☐ to Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: Credit card information should *not* be included on this form as it may become public.

- ☐ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

FEE DEFICIENCY

9.

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

10. ☒ If any additional extension and/or fee is required, charge
☒ Deposit Account No. 14-0740
☐ Credit card as shown on the attached credit card information authorization form PTO-2038.

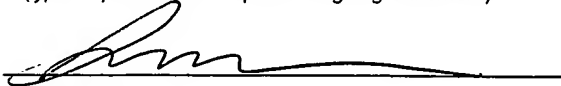
WARNING: Credit card information should *not* be included on this form as it may become public.

SIGNATURE(s)

Gregory D. Williams

(type or print name of person signing statement)

June 7, 2002
Date
32 Tozer Road


Signature

P.O. Address of Signatory
Beverly, MA 01915

(if applicable)

Telephone No. (978) 927-5054 X:292
Reg. No. 30901
Customer No.: 28986

- ☐ Inventor(s)
☐ Assignee of complete interest
☐ Person authorized to sign on behalf of assignee
☒ Practitioner of record
☐ Filed under Rule 34(a)
☒ Registration No. 30901
☐ Other _____

(specify identity of declarant)

(complete the following, if applicable)
New England Biolabs, Inc.
NEN Life Science Products

(type name of assignee)
Beverly, MA/Boston, MA

Address of assignee

Secretary

Title of person authorized to sign on behalf of
assignee

A "STATEMENT UNDER 37 C.F.R. § 3.73(b)" is attached.

Assignment recorded in PTO on _____

(not yet recorded)

Reel _____ Frame _____

Reg. No.: 30901

Tel. No.: (978) 927-5054 X:292

Customer No.: 28986


SIGNATURE OF PRACTITIONER

Gregory D. Williams
General Counsel

(type or print name of practitioner)
New England Biolabs, Inc.
32 Tozer Road

P.O. Address

Beverly, MA 01915



UNITED STATES PATENT AND TRADEMARK OFFICE

 Commissioner for Patents, Box PCT
 United States Patent and Trademark Office
 Washington, D.C. 20231

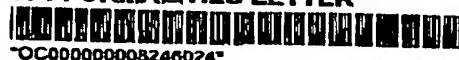
U.S. APPLICATION NUMBER NO. 10/089,027	FIRST NAMED APPLICANT william e jack	ATTY. DOCKET NO. NEB-166-PUS
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 28986
 NEW ENGLAND BIOLABS, INC.
 32 TOZER ROAD
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INTERNATIONAL APPLICATION NO. PCT/US00/26900	
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RECEIVED

6.16.02 mg

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- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase Patent Software, call (703) 306-2600
 - For Patent Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
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PATRICIA A BOOKER

Telephone: (703) 305-3738

PART 2 - OFFICE COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/089,027	PCT/US00/26900	NEB-166-PUS